AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A processing apparatus for removing an oxide film from a surface of an object to be processed, the processing apparatus comprising:

a processing container accommodating the object to be processed therein;

an active gas species generating unit for producing active gas species;

a heater arranged outside the processing container to heat the object to be processed;

a transparent window formed in the processing container between the heater and the object to be processed, the transparent window sheltering the interior of the processing container from the outside in an airtight manner and also allowing heating energy from the heater to pass through; and

a movable shielding plate provided in ~~such a way that the shielding plate can be inserted into or extracted from~~ a gap between ~~the object and~~ the transparent window and the object configured to shield the object from heat radiation from the transparent window, the shielding plate being extractable from and insertable into the gap;

wherein, on condition that the shielding plate is inserted into the gap between the object and the transparent window so as to prevent a heat stored in the transparent window during a former heating process from being transferred from the transparent window to the object, the processing apparatus allows the oxide film formed on the surface of the object to react with the active gas species under unheated condition, thereby forming a product film; and subsequently,

on condition that the shielding plate is extracted from the gap between the object and the transparent window so as to apply irradiation heat irradiated from the heater to the product film through the transparent window, the processing apparatus allows to heat the product film to a predetermined temperature for vaporization, thereby removing the product film.

2. (Canceled)

3. (Currently Amended) A processing apparatus as claimed in claim 1 [[or 2]], wherein the active gas species generating unit is configured to produce ~~are active gas species of~~ NF_3 gas.

4. (Previously Presented) A processing apparatus as claimed in Claim 1, wherein the shielding plate is provided with a cooler for cooling the shielding plate itself.

5. (Canceled)

6. (Currently Amended) A processing apparatus as claimed in Claim 1 [[or 2]], wherein the active gas species generating unit includes:

a plasma generating tube having a plasma generating part;

a plasma gas introducing part for supplying both N_2 gas and H_2 gas into the plasma generating tube; and

a NF_3 gas supplying part for adding NF_3 gas to the active gas species flowing down from an interior of the plasma generating tube.

7. (Original) A processing apparatus as claimed in Claim 6, wherein

the plasma generating part comprises a microwave generating source for generating microwaves and a waveguide for introducing the so-generated microwaves into the plasma generating tube.

8. (Withdrawn) A processing method of removing an oxide film from a surface of an object to be processed while using a processing apparatus which includes a processing container accommodating the object to be processed therein, a heater arranged outside the processing container to heat the object to be processed, a transparent window formed in the processing container between the heater and the object to be processed, and a shielding plate provided in such a way that the shielding plate can be inserted into or extracted from a gap between the object and the transparent window, the processing method comprising the steps of:

allowing the oxide film formed on the surface of the object to react with active gas species under a condition of low temperature on condition that the shielding plate is closed to insulate irradiation heat irradiated from the transparent window, thereby forming a product film; and subsequently,

opening the shielding plate and applying irradiation heat irradiated from the heater to the product film through the transparent window to heat the product film to a predetermined temperature for vaporization, thereby removing the product film.

9. (Withdrawn) A processing method of removing an oxide film from a surface of an object to be processed, the processing apparatus comprising:

allowing the oxide film formed on the surface of the object to react with active gas species under a condition of low temperature in a first processing chamber, thereby forming a product film;

transporting the object having the product film formed thereon from the first processing chamber to a second processing chamber; and

heating the product film formed on the surface of the object in the second processing chamber, to a predetermined temperature for vaporization, thereby removing the product film.

10-11. (Canceled)

12. (Currently Amended) A processing apparatus according to claim 1, wherein the heater is configured to be actuated after finishing the step of forming the product film.

13. (Previously Presented) A processing apparatus according to claim 1, further comprising:

a shaft connected with the shielding plate;

a driver arranged outside the processing container for driving the shaft; and

a seal for airtight sealing between the shaft and a wall of the processing container;

wherein the shielding plate is inserted into or extracted from a gap between the object and the transparent window by actuating the driver.

14. (Withdrawn) A processing method according to claim 8, wherein the heater is actuated after finishing the step of forming the product.

15-16. (Canceled)